THE FARMERS' CABINET,

DEVOTED TO AGRICULTURE, HORTICULTURE AND RURAL ECONOMY.

Vol. I. **Philadelphia, May 15, 1837.** **No. 21.**

For the Farmers' Cabinet.

Agricultural Implements.

NO. VI.

THE PORTABLE HORSE MILL.

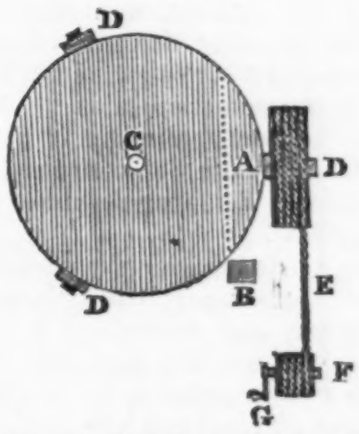
So long as the demand for the labor and services of men is greater than the supply, it is the interest of farmers, and all consumers of the produce of farms, to have as much of the labor as possible performed by horses and oxen, as a substitute for that of men. With these views I send the following remarks for the Cabinet, thinking they are sufficiently explicit to enable most persons to direct the building of a machine.

The shafts, boxes, bolts and nuts may be composed of iron, and all the other parts of hard seasoned wood, of such dimensions as the proprietor may choose; this will depend upon the amount of moving force to be applied, the required velocity, &c. The whole may be placed upon runners or on wheels, and thereby made portable, and be used to convey a continuous circular motion to the *corn sheller*, described in a former communication, and other kinds of machinery upon a farm, by means of cogs, rope, band, chain or otherwise, and by using a crank an alternating motion may be obtained.

Suppose a horse placed upon a horizontal wheel, and drawing at a fixed object with sufficient force to move the wheel by his feet round a fixed vertical shaft; this wheel is supported by three small vertical wheels, placed at equal (or other) distances asunder, each with one end pointing toward the fixed vertical shaft, and the horse placed with his middle over one of them, and at right angles to the radius of the horizontal wheel; the vertical wheels extend from the periphery of the horizontal one toward its centre, a sufficient distance to be turned by its lower face, acting on their peripheries, and the one beneath the horse extends beyond the periphery of the horizontal one, a sufficient distance to convey motion to other machinery by cogs, rope, band, chain or otherwise.

If two or three horses should be used at the same time upon the wheel, each horse is placed over a vertical wheel.

Fig. 76.



The horse A drawing at the fixed object B, parallel with the dotted line, turns the horizontal wheel C round the fixed vertical shaft at its centre; this moves the vertical wheels D D D and band E, and turns the pulley or wheel F in a continuous circular direction; and an object attached to the crank G will be moved in an alternating direction.

Chester co., Pa., 29th April, 1837.

For the Farmers' Cabinet.

Alternating Elevator for the Power of Men.

In my last communication I gave a description of the "ALTERNATING ELEVATOR FOR HORSE POWER." *This* will give one for the application of the power of men, which may be used to advantage in situations where horse power cannot be procured, or where the situation will not admit of its being used.

The useful effect of horse power compared with that of men, where both are applied to the greatest advantage in elevating ponder-

ous or heavy substances, continued for ten hours each day, is generally considered by writers on the subject, as six to one in favor of the horse.

As there are some situations where the power of men can be used more conveniently than any other, it becomes a subject of considerable importance to apply it in such a manner, that the greatest useful effect will be produced from a given amount of exertion or labor.

A horse moving on a horizontal road, attached to a rope, and the rope passing over a vertical pulley and descending into a well, or from the upper pullies, as described in the *Alternating Elevator* referred to above, will elevate two hundred pounds at the rate of two miles an hour; a man of ordinary strength and activity would not be able to carry his own weight to this height, independent of any load.

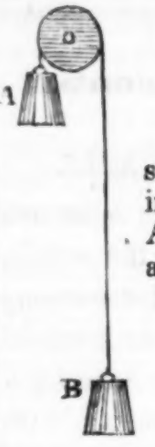
Perhaps this manner of a man carrying his own weight alone to a given height, and raising an amount of weight rather less than his own, to the same height as he descends, would be the best application of human exertion, and it is upon this supposition, that I recommend the following described machine for that purpose.

Suppose a man weighing one hundred and sixty pounds, of ordinary strength, ascending upon a ladder, and descending in a bucket attached to one end of a rope, and the other end of the rope attached to a weight rather less, say one hundred and fifty eight pounds; this rope runs upon a pulley placed rather higher than the point to which the weight is to be raised; now the same man carrying up a load of seventy-nine pounds, and descending upon a ladder unloaded, would not be able to continue the exertion for ten hours each day, with more than two-thirds the velocity that he does when ascending unloaded, and descending without any muscular exertion. If we take the above estimate as a correct one, the power of a horse may be stated by the number eighteen; the best application of human power, three, and the usual mode of ditto at one.

The insurance upon the life of a horse, together with the expense of his food, attendance, &c. annually, would not generally be more than fifty per cent. beyond that of a man's board and wages; this will make the relative value of the power of a horse to that of a man, in the most usual manner of applying the power of the latter, (as above stated,) in the proportion as twelve to one, and compared with the best manner of applying that of men, as four to one; consequently, horse power should always be used in preference to that of men, where circumstances will admit; and a man should always descend without muscular exertion, and at the same time raise a weight as near an equality with his own as possible, where this kind of power is used.

Probably there are exceptions to the rule of ascending unloaded, particularly where a man is more conspicious for strength than activity; in this case he might carry up such a load as experience may dictate.

Fig. 77.



A man weighing 160 lbs., descending in A, will raise 158 lbs. in B; he then places 158 lbs. in A, and descends in B, and so on alternately.

Chester co., 15th April, 1837. P.

For the Farmers' Cabinet.

The Observer---No. 7.

THE PEACH INSECT.

Only a very few have, successfully, cultivated an acquaintance with the history and habits of the *peach insect*—or submitted the plans, which have been proposed to arrest its ravages, to the test of fair experiment. Their communications, too, may be inaccessible to the readers of the Cabinet, generally. Hence, I have thought that a brief summary of what appears to be known, on the subject, may not only prove interesting, but perhaps, encourage further investigations.

The Peach insect belongs to the

Order, Lepidoptera;—having the body and wings covered with fine scales, in form of a loose powder, which easily rubs of. Ex. Butterfly.

Family, Crepuscularia;—which fly abroad during the evening and morning twilight.

Genus, Sphinx—Linnæus.
Sesia—Lamarck.
Egeria—Fabricius.

Egeria. Antennæ furiform; palpi long, separate, covered with long scales, or porrected hair; wings horizontal in repose; abdomen bearded at tip.

EGERIA EXITIOSA.

DESCRIPTION.

Male. *Body*, steel blue; *antennæ*, cilliated on the inner side, black, with a tinge of blue; *palpi*, beneath, yellow; *head*, with a band at base, both above and beneath, pale yellow; *eyes*, black-brown; *thorax*, with two pale yellow longitudinal lines, and a transverse one behind, interrupted above, and

a spot of the same color beneath the origin of the wings; *wings*, hyaline, nervures and margin, steel blue, which is more dilated on the costal margin, and on the anastomasing band of the superior wings; *feet*, steel blue, the coxæ, two bands on the tibiæ, including the spines, incisures of the posterior tarsi and anterior tarsi, behind, pale yellow; *abdomen*, with two very narrow pale yellow bands, one of which is near the base, and the other on the middle; *tail*, fringed, fringe margined with white each side.

Female. *Body*, very dark steel blue, with a tinge of purple; *antennæ*, destitute of cilliæ; *palpi*, beneath, black; *thorax*, immaculate; *superior wings*, without any hyaline spot; *inferior wings*, hyaline, with an opaque margin and longitudinal line, the latter and the costal margin dilated; *tergum*, "with the fifth segment bright reddish fulvous."—*Say's Am. Entomology, vol. II., plate* 19.

The general aspect of the *peach fly* strikingly resembles that of a blue wasp, especially the female when in a state of repose, for we do not readily discover the nature of its lustrous covering, except by the touch, and the inferior transparent wings are concealed beneath the superior opaque ones. In the *male*, the central portion of all the wings are transparent, or want the blue scales. In the *female*, the inferior wings, only, present this character. The broad red orange band which crosses her abdomen, will also distinguish her from the other sex. Of two females now before me, one measures three-fourths, the other five-eighths of an inch long. The male perhaps is a little shorter.

Conforming to the general habits of the family to which it belongs, our subject ventures abroad only during the twilight, and thus so effectually eludes observation as seldom to be seen, unless collected in the pupa state.

Although the *egeria* so generally affects our peach trees, as to have acquired the appropriate name of *Peach Fly;* yet, in my garden, not only the peach, (anygdalus persica,) but the almong, (A. communis,) the dwarf flowering almond, (A. pumila,) the Chicasaw plum, (prunus chicasa,) and the black plum, (P. domestica,) have all shared the same fate. Future observations may, possibly, determine that those trees are affected by different species of egeria.

When deposited in confinement, the *eggs* are oblong-oval, yellowish white, and so small as to be indistinctly visible to the naked eye. Hence, it is difficult to discover the place where they are usually deposited. But as the larvæ are first observed at or immediately below the surface, and first penetrate the soft bark in that situation, we may safely infer, that to be the place where the eggs were deposited. I have, sometimes, seen a vast number of minute larvæ, resembling those of the peach fly, in the moist, soft gum, which had exuded from the tree at the surface of the ground—the eggs of these might have been placed in the gum.

The young worms appear to penetrate the bark *about the commencement of the autumnal frosts.* Having reached the wood, they turn their course downwards to the root. As they make but slow progress, they cannot escape the frosts of winter, and must, therefore, pass that season in a torpid state. With the return of spring, they resume their downward course, for a time, and then return towards the surface, where they arrive about midsummer, in order to assume the form of pupæ. The worms are then an inch, or more, in length, of a yellowish white, or cream color, the head flattened, and of a reddish brown hue.

Having completed the larva state, it emerges from the bark, and choosing a situation, *just at the surface of the ground*, among the gum, grass, and its own gnawings of the bark, it envelopes itself in a sort of cocoon, or follicle, composed principally, of gnawed bark cemented together with a glutinous web. This *follicle* is oblong-oval, an inch long, brown, and exteriorly presents nothing but the fragments of bark which compose it. Within this homely dwelling, the worm undergoes its first transformation.

The *pupa* is of a chesnut-brown color, a little rough, or spinose, and exhibits the form of the contained members in bold relief. The pupa state, probably, endures for two or three weeks, before the final transformation takes place.

Generally, the pupæ contained in their follicles, may be found, in the situation I have described, *between the first and middle of the seventh month* (July.) James Worth (*Journ. Acad. Nat. Sciences, Philad. vol. III.*) examined his trees on the *tenth*, and found *thirty* larvæ, (all of which had returned to the surface preparatory to their change) and *twenty* follicles, from four of which, the flies had already escaped. I have never seen the pupæ at any other period. Those who wish to examine the insect can most readily procure it in this way.

Some persons believe that the peach insect does not always observe the periods I have mentioned. Evan Thomas, in *American Farmer, vol. VI. p.* 37, after confirming some of the statements I have made, says, "in general, however, the pupæ are formed early in October, in the midst of a conglomeration of gum, fibrous, and excrementitious matter, and about the close of the month, the insect issues from the chrysalis, deposits its eggs, as before mentioned, and prepares to hibernate, like others of the same tribe, in the roofs of houses, beneath the bark of old

trees, &c. The larvæ appear in April, assume the nymph state, and accomplish their final transformation in July. Thus, there are two periods in each year, assigned for their production and reproduction; nevertheless, individuals may be seen, during the whole season, in almost every stage of existence." This history will hardly be sustained by future observations. It does not seem probable, that the fly would deposit her eggs in October, and then endure the winter in a state of hibernation—nor do I suppose, that eggs hatched in April, would reach the perfect state in July.

Agreeably to the history of the habits and changes of the peach insect which I have given, it appears that the eggs are deposited from the middle of the seventh, to that of the eighth month, and perhaps later—that they soon hatch, and the young worms penetrate through the bark in the fall, where they continue till the next midsummer. We may see innumerable punctures in the bark, where the worms have entered—yet we find comparatively few of them inside—hence, it is probable, that many of the young progeny perish before they find a secure nidus. The destruction is in proportion to the age and growth of the worm—hence the *later spring and summer months are the periods of greatest injury*. The trees should, therefore, always be carefully examined, and the worms destroyed, once or oftener in the spring. This would of course, prevent their summer ravages.

Numerous other means have been proposed for the preservation of the peach tree. These may be conveniently classed according to their contemplated object, viz.—such as are intended

1st, To destroy the eggs or larvæ—and

2d, To prevent the access of the fly to the root of the tree, for the purpose of depositing its eggs.

Remedies of the first class, can only be successfully applied, very soon after the eggs have been deposited, while they, or the young larvæ, are yet on the outside of the bark; for it cannot be supposed that they will be destroyed through the bark. To this class belongs *boiling water*, *brine*, *decoction of tobacco*, *soft soap*, *lime wash*, *&c.* applied to the trunk and root of the tree. They might, perhaps, be advantageously applied at intervals during the latter part of the seventh, and two or three of the following months.

Remedies of the second class should, however, be preferred, inasmuch as it is better to prevent than to cure the evil. Among these may be mentioned

1. Such as render the vicinity of the tree disagreeable to the fly. This has been attempted by planting a bunch of worm-wood at the root of the tree, and, in several experiments, with apparent advantage. Two trees so guarded in my yard, escaped the worm for several years, but were finally destroyed. Perhaps if the stalks had been tied up around the trunks, instead of being allowed to fall, it might have succeeded better. It has also been recommended, to tie the leaves and stems of tobacco, &c. around the trunk, for the same purpose. I do not know with what advantage.

2. Such as allow the bark to dry, and become hard at the surface, so as to resist the attack of the young worms. This can be conveniently effected, to a certain extent, by *piling loose sand*, *ashes*, *lime*, *tanners bark*, *sawdust*, *flax shives*, *&c. around the tree*. As these substances do not retain much moisture, the young worm must either pierce the dry, hard bark, or pass far down, in quest of that which is softer—and it may often perish in the attempt to do either. The same object has been obtained by removing the surface earth, spreading a coating of lime mortar round the trunk, and then returning the earth. This last method, in particular, has been thought highly beneficial.

3. Such as keep the flies at a still greater distance from the root of the tree. With this view, it has been advised to remove a little earth from about the tree, then to take a bunch of straw, or a piece of coarse cloth, or matting of any kind, and place it round the tree, retaining the lower end by replacing the earth upon it, and the upper by means of a string round the stem. To be effectual, this application should be made just before the season when the eggs are deposited, say the first of seventh month (July) and it ought to be removed so soon as that season is passed. Perhaps not earlier than the tenth month (October.) When the wrapping is taken off, the trunk should be well washed with *hot water*, *brine*, *decoction of tobacco*, *&c.*, as already mentioned, in order to destroy any eggs or larvæ, which may have been lodged on the bark beneath it. The design in promptly removing the guard from the tree, is to afford an opportunity of applying the wash to the bark, so as to destroy any larvæ, which may have entered at the top, before they reach the root.

From all that is known on the subject, I would then advise, *first*—to apply the straw or matting, during the period of laying the egg; *second*—so soon as this can with safety, be removed, to apply some of the washes which have been mentioned; and *third*—to examine the trees, two or three times in the spring, and remove any larvæ which may have got into them. Constant vigilance and persevering industry are indispensable requisites for a successful horticulturist.

New Garden, 5th mo. 1st, 1837.

For the Farmers' Cabinet.

The writer of this has heard that a small lump of lime, put into the water in which potatoes are boiled, causes them to be dry and mealy, and that salt usually causes them to be hard and firm. Z.

For the Farmers' Cabinet.

It is said that spirits of turpentine placed upon the head of horned cattle will cure the disease called the *Hollow Horn*. The process recommended, is to put a small quantity just back of the root of the horns, and repeat as often as may be necessary. Animalcule is supposed to be the cause of this disease. A.

From a communication of JAMES CAMAK, Esq. of Athens, Geo. to the Editor of the Farmers' Register.

Indian Corn,

MADE WITHOUT TILLAGE AFTER PLANTING.

By experiment, I have arrived at some conclusions in regard to the culture of Indian corn, which I think are of importance to planters in the southern states. I communicate them for the use of the public with great hesitation, because they are directly at variance with the received opinions on the subject.

The early part of my life was spent in agricultural pursuits—and hence, if there were no other reason, I feel a deep interest in every thing relating to agriculture. I noticed, very early, the great difficulty in transplanting successfully the young corn plants. Whence comes this, but from breaking the roots in taking the plant up? How is it then, that intelligent planters affirm the doctrine, that one chief object of ploughing corn, is to cut its roots? If breaking the roots of young corn in transplanting it, is really fatal to its future growth, must not breaking its roots with the plough, when it is older, and the season hotter, be a serious injury to it? Any other conclusion seems to me to be at variance with the general economy of nature. It seems to me that there can be, in truth, but two reasons for ploughing or hoeing corn,—1st, to destroy grass and weeds; and 2d, to keep the soil loose, that the roots may penetrate easily, in search of their proper food. But in accomplishing these two purposes, great injury must be done to the corn, by breaking its roots. Can we not accomplish both these ends, and at the same time keep clear of the attendant mischief? I think we can.

Last spring I planted a small piece of poor ground—first breaking it up well. The rows were made three feet apart, and the stakes left about a foot apart in the drill. The ground had been very foul last year with crab grass, whose seed matured. The corn was not well up this spring before the grass began to appear. When the corn had about four or five blades, the young grass completely covered the ground and the corn was turning yellow. I spread a small quantity of stable manure around the corn, and covered the whole ground with leaves from the forest, taking care to do this when the ground was wet, and the leaves also, that they might not be blown away, and to leave the tops uncovered. In *ten days* there was not a particle of *living* grass to be found, and the corn had put on that deep bluish green which always betokens a healthful condition of the plant.

From the day the corn was planted until after the fodder was pulled, and the tops cut, nothing more was done with it, and the result is a product at the rate of *forty-two* bushels to the acre—about one third of the stalks having two ears on each of them.

I noted, in the course of the summer, the following facts:—

1st. The corn treated thus, was always ahead of some planted alongside of it, and treated in the usual way.

2d. It ripened at least ten days sooner than other corn, planted at the same time.

3d. During the hottest and dryest days the blades never twisted up, as did other corn in the neighborhood.

4th. In the dryest weather, on removing the leaves, the ground was found to be moist to the surface, and loose, as deep as it had been at first broken up.

5th. The heaviest rains had scarcely any effect in washing away the soil, or making it hard.

It certainly will require less labor to produce corn in this way, than in the usual mode. And even if it required more, we have the consolation to know, that while, by the old mode, every hour's work is an injury to the land, by this mode, every hour's work is making the land, better; for few things can be better manure than the coating of leaves put on in summer, when ploughed in in the winter or spring following.

I used leaves raked up in the forest, because of these there is an ample supply within the reach of almost every person—and because there seems, from my observation, to be a strong antipathy between dead and decaying forest leaves, and crab grass, that most harassing foe of agriculturists.

I make this communication, as I have already said, with hesitation, because the idea of raising corn without ploughing and hoeing, and at the same time improving the land, by protecting it against the influence of a scorching sun and washing rains, is directly in the teeth of the universal practice for ages. The thing is, however, at least, worthy of further trial. It *may* lead to most important

results. Those who think the plan worth any attention, may easily make an experiment with an acre or two, and note carefully its progress through the summer. If they are satisfied, after the trial, that there is any thing in it, to extend the operation will not be a difficult matter.

If, on experiment, it should be found advisable to extend the operation, the proper way would be I think, to collect the leaves in the winter, and deposite them in heaps on the ground on which they are to be used, and the next spring, during a wet season, after the corn is up, spread them, taking care to leave the tops of the young corn uncovered.

There is one very important result that must follow the success of this plan on a large scale—and it was with an eye chiefly to that result, that my experiment was undertaken. The constant excuse for not improving land, is that where cotton is grown, the time necessary, first to cultivate the growing crop properly—next to gather it, and then to prepare for a new crop, leaves the planter no time to collect manure. My plan will put an end to that excuse at once; for wherever leaves are to be had, half the time usually bestowed on working the corn crop in the usual way, spent in gathering leaves and putting them on the ground, instead of ploughing it, *may* in a short time, accomplish every thing that can be desired in the way of manuring.

Why may not the same process answer in the cultivation of cotton? If it keeps the ground soft and moist, and prevents the growth of grass and weeds in a corn crop, it will surely have the same effect with cotton—and be the means, further, of preserving the cotton when the bolls open, from all the injury it sustains from the soil in wet seasons. This is, however, but speculation. Let it be tested by actual experiment.

JAMES CAMAK.

Farmers' Work.

Pasturing Stock.—Do not turn your cattle to grass too early in the spring. Dr. Deane was of opinion that the 20th of May, was, in our climate, quite early enough to permit cattle to go to pasture; and some farmers think it best to keep working oxen and horses to hay, &c. at least to the first of June. It is not right to turn all sorts of cattle into pasture together. Milch cows, working oxen and fatting beasts should have the first feeding of an inclosure. Afterwards sheep and horses. When the first has been fed off, it should be shut up, and the manure which has been dropped should be beaten to pieces, and well scattered. Afterwards the second pasture should be treated in the same manner, and the rest in course, feeding the wettest pasture after the driest, that the soil may not be too much broken up by the cattles' feet.

Dr. Deane observed, that "something considerable is saved by letting all sorts of grazing animals take their turns in a pasture.—By means of this, nearly all the herbage produced will be eaten; much of which would otherwise be lost. Horses will eat the leavings of horned cattle: and sheep will eat some things that both the one and the other leave.

"Let the stock of a farmer be greater or less, he should have at least four inclosures of pasture land. One enclosure may be fed two weeks and then shut up to grow. Each one will recruit well in six weeks; and each will have this time to recruit. But in the latter part of October, the cattle may range through all the lots unless some one may become too wet and soft. Feeding pastures in rotation is of greater advantage than some are apt to imagine. One acre, managed according to the above directions, will turn to better account some say who have practised it, than three acres in the common way."

An English writer says, in turning out horses to grass in the spring, it is usual to choose the forenoon of a fine day to do it in; the natural consequence is, the horse fills his belly during the sunshine and lies down to rest during the cold of the night, thereby probably exposing himself to disorders. In some parts of Yorkshire, a better practice prevails; the horse is turned out at bed-time; the consequence is, he eats all night, and sleeps in the sunshine of the next day."

It will not be proper, when you have turned your cattle to grass, to overlook or neglect them. You should see every animal every day, if you rise an hour before the sun for that purpose.

The bottom of an old hay stack is said to be excellent manure for pasture land, as besides the nourishment it affords, it contains a quantity of grass seed, which furnishes a new set of plants. It should never be suffered to mix with manure for grain, or corn lands, as it will cause them to be overrun with grass and other plants, which though useful in a pasture, are weeds in arable land.

Importance of Destroying Weeds.

The abundance in which weeds are seen in some fields, show conclusively that but little of the mischief caused by them is understood. Weeds are injurious to the land and to the crop in almost every possible way that they can be. In the first place they exhaust the soil to support their own useless growth, and abstract that nourishment from

it, which ought to go exclusively to support the crop. Secondly, they crowd upon other plants above ground, prevent them from branching out at their roots, and deprive them of a free circulation of air necessary for their health and vigor, so that they shoot up only single, weak, sickly stalks, incapable of producing a valuable crop. Thirdly, they throw off from the soil through their leaves into the air, an almost incredible quantity of moisture, and speedily reduce the ground to so dry a state, as to be fit for weeds only to grow in. So enormous is the quantity thrown off by some plants, that it actually exceeds more than twice their own weight in a single day. A bunch of grass, placed, during a very dry season, under a large vessel, sent off moisture in two minutes so as to cover the vessel with drops, which run down its sides. Dr. Watson, who first performed this experiment, was led to conclude from its results that an acre of grass exhales more than thirty hogsheads a day. Plants are in fact but channels through which moisture is conveyed up from the soil to be dissipated in the air. Hence, the absurdity of the opinion, that weeds will prevent the ground becoming dry by shading it. Let any one in dry weather examine a piece of perfectly bare soil, a few inches below the surface, and compare its degree of moisture with that of soil at an equal depth, near the roots of a thick growth of weeds, and he will find the difference astonishing.

Now, of what use is it to attempt raising crops if they are to be wasted by a growth of weeds? Of what use is it to buy land, and plough it, and prepare it, and put in the crops, if after all, these crops are suffered to be *eaten up* by such intruders. If a drove of cattle should break into a field, no one would think of resting a moment till they were driven out; and yet many allow myriads of noxious weeds to overspread their lands, often doing threefold more mischief, with scarcely an effort to check their progress. And this is not only permitted in cultivated fields, but in meadows and pastures, which are sometimes literally covered with Canada thistle, St. John's wort, and many others, to the total exclusion of every thing else from the soil. —*Gen. Farmer.*

Beans.

What is the best kind of beans to plant for a field crop. Some say the *white* bean because they think it is the most saleable. Mr. Buel says the *China bean* is the best; because he says 1. It is intrinsically the richest and best bean; 2. It ripens early, and comes off in time for a crop of winter grain; 3. We think it gives the best crop; and 4. It brings us the best price. Yet we ought in candor to add, that it requires the best ground. The white bean will grow where this will starve. The white bean is the most saleable. We think plaster may benefit the bean crop; and recommend that it be sown at the rate of a bushel to the acre, before the last ploughing for the crop.

On an acre of light ground, where the clover had been frozen out the preceding winter, I spread eight loads of long manure, and immediately ploughed and harrowed the ground. Drills or furrows were then made with a light plough at the distance of two and a half feet, and the beans thrown along the furrows about the 25th of May, by the hand, at the rate of at least a bushel on the acre. I then guaged a double mould-board plough, which was passed once between the rows, and was followed by a light one horse roller, which flattened the ridges. The crop was twice cleaned of weeds, by the hoe, but not earthed. The product was more than forty-eight bushels by actual measurement. The beans brought me one dollar the bushel last fall. The third experiment was likewise upon a piece of ground, where the clover had been killed. It was ploughed about the first of June, the seed sown like peas, upon the first furrow, and harrowed in. The drought kept them back, but about 65 rods of ground, on which the experiment was made, gave a product of twelve and a half bushels. The crop was too ripe when it was harvested, and as it was cut with a scythe, I estimated that about two and a half bushels were left upon the ground. No labor was bestowed upon them from the time they were sown till they were harvested.

Agriculture.

To solicit his mother earth for life's sustentation by the wholesome process of tillage, has ever been the most natural and honorable occupation of man. The great Creator has designated the earth, not only as the common receptacle of the mouldering bones and decayed forms of human kind, but also as their common source of aliment and support whilst the vital current continues to flow. And, as the pursuit of agriculture is the most universal and natural employment of our race, so it is the most rich in moral fruits; and more than any other avocation, leads to a desirable innocence and simplicity of life. Its rural scenery, "the pomp of groves, the garniture of fields, all that the genial ray of morning gilds, all that echoes to the song of even, and all the dread magnificence of heaven," are so many sublime incentives to adoration and gratitude.

The season of the year has now arrived when the busy operations of husbandry are commencing.

"When first young zephyr melts the mountain snow,
And Spring unbinds the mellowing mould below,
Press the deep plough, and urge the groaning team,
Where the worn shares, in opening furrows gleam."

It is now the patient earth endures the rake and the harrow; and in return for the deep wounds inflicted on her broad and furrowed visage, promises an ample remuneration in those precious fruits that constitute the life of man and beast. It is now that the hand of industry deposits among the clods the dry and withered seeds, which would remain as unproductive as the salt sown by Ulysses on the sea shore, but for the kindly blessings of Heaven.

The true secret of Agriculture, as Cato has long since taught us, to "*feed well.*" The neglect of this rule will be fatal to all success in the matter, will bring disappointments instead of harvests, and poverty instead of abundance. It will be found universally, that husbandry may be pronounced good or bad according to the observance or disregard of this rule. Let the faithful beasts of burden be consigned to leanness, let the lowing herds pine away for want of sufficient pasturage, let all the creatures for man's use be left in meagre, ill-fed forms, and no great penetration will be requisite to pourtray the character of such husbandry. But reverse the picture, and the most captious and fastidious taste would admit the merit of the management that could so bless and beautify the beasts of the field.

Gooseberries.

In all cases, the gooseberry should be kept free from suckers, and trained near the ground to a single stem, this mode of training them being found to cause a far greater product in quantity, as well as an increase in the size. They need much attention in other respects, and one-third of the old wood must be regularly trimmed out every autumn, by which means a succession of thrifty bearing wood will be kept up; as the finest fruit is produced on the young shoots of the previous year's growth, it is also necessary every autumn to dig in a plenty of old well-rotted manure around them. This treatment will cause them to grow strong, and the fruit to be large and fair. Where the summers are very hot, a northern aspect is preferable, and the fruit will be twice the size if they are planted against a north fence, or in any other situation where they are sheltered from the intense heat of noon-day, which, when differently situated, often scorches the fruit to such a degree as to entirely stop its growth.—*Prince.*

He who knows the world will not be too bashful. He who knows himself will not be impudent.

Potatoes for Food.

Their uses for man or beast are too well understood to require any remarks of mine on the subject. This most valuable of plants in the whole vegetable kingdom, undoubtedly affords more healthy nourishment to that portion of the human family residing in Europe and America, than that of any other vegetable; perhaps it is safe to say double the amount, and at less than half the expense.

Orchards and Gardens of Damascus.

The city is entirely surrounded by orchards, or rather by forests of fruit trees, with which the vines are entwined as at Naples, and hang in festoons among fig, apricot, pear and cherry trees. Under these trees, the earth, which is rich, fertile, and always well watered, is carpeted with barley, corn, maize, and all the leguminous plants which this soil produces. Little white houses peep out here and there, from amidst the verdure of the forests; they are either the gardners' houses, or little summer houses belonging to the family who own the ground. These cultivated enclosures are peopled with horses, sheep, camels and doves, and every thing that can impart animation to the scenery of nature; they are on an average, two or three acres in extent, and are separated one from another by mud walls baked in the sun, and by fine quickset hedges. Numerous shady paths, refreshed by fountains, intersect these gardens, leading from one suburb to another, or to the different gates of the city. The gardens form a boundary twenty or thirty leagues in circumference round Damascus.—*Lamartine's Pilgrimage.*

The Farms of England.

The farms are regularly laid out in squares and parallelograms of from two to forty acres, and in general they are laid down as smooth and level as the roller can make them. Here is a luxuriant wheat field, and there a fine meadow, and next a rich pasture, and there busy preparations for putting in potatoes or turneps; and there barley or oats just shooting up from the dark and rich soil. But scarcely a rod of *fence*, such as we meet with every where in the United States of America, do you see in your two hundred miles ride from Liverpool to the metropolis. All is *hawthorn;* and these hedges, which are, for the most part, kept neatly trimmed about the gardens and farm-houses, and by the road side, add more to the beauty of the country than any description had pictured upon any mind. The common method of making the hedges is this: first a ridge is thrown up, perhaps a foot from the level of the fields which are to be fenced off, then the young thorn is planted in two parallel rows, about a foot or

eighteen inches apart. The growth is not very rapid; but when it has attained the height of four or five feet in about as many years, it becomes so dense that no domestic animals would think of breaking through it. The leaf is small, deeply verdant, and beautifully serrated. In the month of May these hedges are clothed with a white fragrant blossom, very much resembling that of the thorns of our own country, and it is then that the honeysuckle and other wild flowers unfold their bright hues and mingle their sweetness with the hawthorn. In the hedges, trees, such as the oak, the elm, and the horse chesnut, are planted, sometimes in rows near together, but oftener far apart, so that each one rises and waves by itself over the humble, but not less charming growth below. Single trees of a great age, and very large, are sprinkled here and there in every direction, and every now and then you catch a glimpse in the distance of a grove or circular clump, which adds not a little to the beauty of the landscape.—*Humphrey's Tour.*

Is Farming Profitable?

In prosecuting the business of life, it is very desirable to do it in such a manner that, so far as regards temporal matters, competency at least may be secured; and the way in which this can be done the most easily, effectually, and with the least probability of reverses, becomes an inquiry of considerable interest. We speak now of the ordinary means of obtaining a good living, of the regular prosecution of professional business, of the usual results of trade, of money at the legal rates of interest, and farming as it has been on the average for the last five years. Now in some respects the "times are out of joint;" all the customary modes of doing business seem to be broken up; men are in a haste to be rich; and the opportunities for speculation, and the success which in some instances has attended it, appear to have had their influence every where—less perhaps among farmers than any other class of citizens, though even for them it will not do to plead entire exemption.—Many have sold their farms, and after spending months in looking for others, have come again and consented to pay roundly for the privilege of getting on to the "old place" again. Other farmers have sold out, and without personal investigation, have at once started for that earthly paradise, the far west.—Disappointed, they have returned, and after having lost most of their property in the expenses of removal, are content to again commence a gradual accumulation of property. But a great majority are still working on, sowing and reaping, and it is a question which should be solved; whether such are not on the whole making money as fast as they probably would with the *same capital* in any other legitimate business. What we mean is, can a a man with five or ten thousand dollars, realize as much from it by investing it in a farm, as he could by loaning it at the legal rate of interest; and will it support himself or his family as handsomely in the first way as the last? To contribute our mite towards answering these questions, is the object of this paper.

The man who expects to get rich at once by farming, must expect to be disappointed; but in this matter he is no worse off than he who has only the same moderate capital in cash, and uses it in a legal way. In both cases the addition to the capital stock, can consist only of what remains of the income after *all* demands upon it are met. We will attempt to illustrate this. Two men, A. and B., are about to commence life with the same capital, say five thousand dollars in cash, each; and their personal expenses are also the same. A. invests the whole of his in a farm, and stock, and goes to work upon it. B. is apprehensive he could not live so, and invests his cash in stock which yields him seven per cent., and determines to do enough to pay his way, so that the interest shall be clear; now which of the two are the most likely to possess competence, if not actual wealth, at the end of ten years? Perhaps a majority at first thought, would say, B. certainly; but we think differently, and imagine that the chances are altogether in favor of A., and these are some of the reasons for this opinion.

In the first place his occupation is favorable to health. The life of a farmer is one of labor, it is true; but labor, unless carried to excess, is far from being prejudicial to the body or the mind. Vigorous exercise, such is the law of our natures, is necessary to the full development of either our bodily or mental powers, and unless this necessity is forced upon us in part, we are apt to evade it, and we suffer in consequence. The maxim, that *every man naturally is as idle as he can be*, we do not dispute; acquired habits, induced by the necessity for exertion, are sufficient to account for any seeming exceptions to this rule. Hence the probability is, that A., having before his eyes the necessity of labor on his farm, will perform the labor, and reap the double benefit in his health and in his purse; while B., who cannot expect to feel that necessity, will of course be less active and industrious, will become less and less inclined to labor, and will eventually feel the effects of this disinclination in diminished health and decreasing profits.

Another reason why the prospects of A. are better than those of B. is to be found in the *habits* that personal industry is almost sure

to create. Experience and observation both assure us, that the man who has any means of living beyond what depends on his own exertion, is very apt to acquire contemptuous ideas of economy, and whatever may be his original intentions, sooner or later finds himself trenching first on the interest of his capital, and then on the capital itself. There can be very few instances found in the country, where the sons of rich men have not diminished the inheritance received from their parents, and the examples are still more rare in which the second generation have not succeeded in scattering the descending property to the winds. A pride, as false as it is injurious, makes those who *can* live upon their money, dislike exertion, until this dislike becomes a habit, rarely shaken off, even after its effects are staring the individual in the face.

But the most sufficient reason of all why A. will succeed, while B. will probably fail, is found in the fact, that money invested in farming is far better than money at 7 per cent. This we think will be questioned by few who have been in the habit of observing what passes around them, or examining the reports made of particular farms which have from time to time appeared in the farming journals of the day. In all such reports it is evident, that after deducting the expense of working, a certain per cent. for the wear and tear, and the necessary repairs, and the interest of the capital employed, the remainder will be clear profits. The amount of this profit will depend on circumstances. The expense of working a grain farm will be greater than on a grazing farm, but the capital employed in stocking is less, and the profits usually much higher; the returns for labor are quicker, and the proceeds accumulate in a comyound ratio.

There have been quite a number of farm reports given to the public through the agricultural journals, but we do not recollect one in which the expense of working was given with precision. The value of the products of the farm have been stated, and the reader has been left to form his own estimate of the amount to be deducted for the items of expense mentioned above, and in most cases the amount of capital employed has been left to conjecture. How then shall the actual expenditure of the farmer be estimated ? for unless this can be done with an approximation to accuracy, it is evident the clear profit of a farm can not be known.

We have been convinced by observation and experience, and by estimates made with as much care as possible, that one-third of the proceeds of a farm will amply suffice to cover all the ordinary expenditures, or in other words will pay for working, keep the farm in repair, and replace the interest on the capital. We are sustained in this position by a communication from Dr. Beekman, the Secretary of the State Ag. So., addressed to the editor of the Farmer's Register, Richmond, Va. in which he states, that except in extraordinary case, one-third of the products will meet all expenses, leaving two-thirds as profit.

Mr. S. T. Vary of Kinderhook, made a report of his farm for the Cultivator, in which he estimates the proceeds from 145 acres of land at $2,285. Deduct one-third of this, and there is left $1,524, which is the interest of $21,772; Mr. Vary did not state his capital or the value of his land, but the profits would pay the interest on 145 acres at $150 an acre—probably more than double its actual price.

Mr. Carter, of Champion, Jefferson county, has furnished judge Buel a farm report, which makes a total of $1,639 from 100 acres.—Among the items is one not usually found on farms, viz: mulberry trees, and which to Mr. C. are quite a source of profit. This amount, less one-third as expenses, &c. would leave $1,093 as profit, or the interest on a capital of $15,600, which would fix Mr. Carter's 100 acres at $156 dollars an acre—a price which would make the good farmers of Jefferson county open wide their eyes.

We have been furnished by a friend with two farm reports, which, though more full than the foregoing, as they state the capital employed, are still deficient in not giving an accurate account of the expenses of cultivation. The first report is from a farm on which 86 acres are under cultivation, and the capital, including farm and stock, is estimated at 4,500 dollars. The proceeds of this farm are given as follows:

Wheat,	$160	Wool,	$112
Barley,	111	Sheep,	24
Oats,	350	Dairy,	50
Hay,	240	Beef,	80
Peas,	40	Grass Seed,	35
Pork,	150		
Potatoes,	40		$1,442
Ruta Baga,	50		

Making a total of $1,442, after leaving many minor sources of profit out of the account, such as two or three acres of poor corn, and other things of which the actual value was not ascertained. The crop of wheat on this farm was reduced at least two-thirds by the severe winter, yet after deducting one-third of the whole, a profit of $962 is left. This sum would be worth the interest of $13,742; or in other words, the capital in this case pays an interest of twenty-one per cent. The cultivated land of this farm at legal interest would be worth 159 dollars an acre.

The other report is from a small farm, forty

acres under cultivation, and the capital in farm and stock estimated at $1,600. The following is the list of the items with their value; and it should be added that the report is for 1835, when farm produce, as will be seen from the prices, was from ten to twenty per cent. below its present value.

Oats, 310 bushels,	44 cts.	$135 62
Potatoes, 340,	25	85 00
Ruta Baga, 240,	25	60 00
Buckwheat, 24,	50	12 00
Corn, 100,	50	50 00
8 pigs,	$2 00	16 00
15 lambs,	1 00	15 00
20 tons hay,	6 00	120 00
1 colt,	20 00	20 00
Cheese, 11 cwt. at	07	77 00
Butter, 605 lbs,	15	90 75
Eggs, 25 doz.	12	3 12
Beef, 16 cwt.	3 50	56 00
Pork, 8 "	5 00	40 00
Wool, 80 lbs.	50	40 00
Grass seed,		6 00
Peas, 50 bush.	50	25 00
		$851 49

Deduct as before one-third from the above total, and we have $567 66, as the profits of forty acres. This would be the interest of $8,100, or on the value of 40 acres at $200 per acre. This farm pays 35 per cent. on the capital at the above estimates of expense and profit, a fact which goes far to prove the conclusion often advanced in this journal, that small farms yield a greater profit than large ones, as they are in general much better cultivated.

But it is very possible some will contend that one-third of the products will only pay for cultivation and repairs, and that the interest of the capital employed should still be deducted in order to give a correct view of the comparative profits of A. and B. We will do this, and it will be seen that the farm which is estimated at $4,500 pays 14 per cent. on the capital, and the one estimated at $1,600, twenty-eight per cent. on the sum invested. These two reports have not been given because there was any thing extraordinary in the amount of their products; on the contrary we imagine there are few good farms which might not equal or exceed them; our object has been to call the attention of farmers to a proper estimate of their advantages, and show that money might be safely and profitably invested in the business of cultivating the soil.—*Genesee Farmer.*

Accustom yourself to strict observance of your duty in all respects, and it will in time be as troublesome to omit or violate it, as it is to many people to practise it.

From the Farmers' Register.

Directions for the Cultivation of Watermelons and Cantelopes.

February 25th, 1835.

Enclosed I send you memoranda for the management of watermelons and cantelopes, by a gentleman who, in 43 degrees of north latitude, frequently raises melons weighing from thirty to forty pounds. If the same pains were taken in the south, how fine and large we might grow our melons.

Your obt, serv't, ——— ———.

Holes, 2 feet diameter, 20 inches deep, filled 1 foot with garden rubbish and unrotted manures, beat down hard, and watered, (two or three buckets full,) then filled to the top with rich soil: on this spread an inch of fine compost or well rotted manure, compact, but not hard. Stick the Seeds—(say twenty or thirty to a hill,)—the upper end of the seed to be a little below the surface of the compost; brush over the hill with the hand so as to fill the holes made by the fingers; then cover the hill with an inch of clear *sand*, often watered. In Alabama, I should think, grass turf, (the grass side down,) would be a good filling for the 12 inches.

Hills, 10 feet apart, 2, 3, and at most, 4 plants only to remain in a hill, and standing apart from each other: thinned by the time the plants have 6 leaves.

If the season be dry, dig down by the side of the hills nearly as deep as the bottom of the holes, and put in a bucket or two of water–filling the hole after the water is absorbed: as soon as the yellow bug is gone, take away the sand and supply its place with soil. This is all that can be done in the hill.

When the plant has six leaves, take off the center shoot with the point of a sharp penknife, and when the lateral shoots are six inches long, take of all but three: when these begin to fall to the ground, secure them down with cross sticks; and as they advance, spade up the ground foot deep in advance of the vines.

Once in every 3 or 4 feet, put a shovel full of soil on a leaf joint of the vine, (not covering up the leaf,) and press it down gently with the foot on both sides of the leaf: if this is kept moist it will take root. The ends of the vines to be kept to the ground by cross sticks.

Let the vines spread from the hills so as to cover the whole ground.

If the side branches of the main vines are inclined to head up, and not to keep to the ground, take them off, say a foot from the main vine.

All pruning to be done in the middle of the day when the sun shines.

Let no melon set within 4 or 5 feet from

the root; and then only one on a lateral branch, three to a plant. Let the vine run on as far as it will—keeping it to the ground: permit no melon to grow that is deformed: pull off no male blossoms.

When the melon is nearly to its size, others may be permitted to set on the same vine, and a second crop raised. I should think the vines might be made to grow from 20 to 30 feet long.

Great care should be taken that the vines are not moved or trod upon.

The *early* but *small* melons. Let the melon set at the 2d or 3d leaf-joint from the root, and take the vine off two joints beyond the melons.

To increase the number of cantelopes.—Take off all the melons that set within two feet of the roots.

These may be planted 6 feet apart, 4 to the hill, and require no particular attention.

Sand on the hills is one of the best preventatives against the yellow bug, though not entirely a preventative.

It is useful to plant pumpkin or squash seeds near the hills for the bugs—taking care to pull them up as soon as the bugs are gone.

Cantelopes should not be planted nearer than 20 yards to muskmelons or cucumbers.

To improve your seed, save none but from the very best melons.

Keep a record if you wish to know certainly the results.

Important Questions in Husbandry should be Settled.

No Advantages gained by Cutting up Corn when bitten by a Frost.

There are, in relation to practical husbandry, very many important questions, which remain yet to be settled. Nothing could contribute more succesfully to the advancement of the rural arts, than to bring such questions to a satisfactory solution. The questions to which we allude are indeed very numerous. Scarcely any truth, in relation to the practice of agriculture, is so well and so generally ascertained and established, as to command universal belief, and produce uniformity in practice. In regard to almost every thing that comes within the province of agriculture, practical men entertain different opinions. Yet it is an unquestionable truth, in relation to every sort of business under the sun, that there is one *right* way of doing it, and that there is no other way equally good. When two or more farmers differ in their opinions, relative to practicing any specific branch of husbandry, they may indeed all be wrong, but it is certain they cannot all be right.

It is very desirable that the important questions which so frequently arise, in relation to the practice of agriculture, should be settled in a satisfactory manner. Gentlemen of scientific and practical attainments, who delight in rendering themselves useful as the patrons of agriculture, should, with a single eye, aim at such objects.

Important questions in relation to the advantages of using plaster, the manner of its application and the manner also of its action, remain yet to be settled. The public mind needs to eb further enlightened on those subjects, for it is obvious that farmers do not in general avail themselves, to so great an extent as they might, of the advantages to be derived from the use of this mysterious article. Important questions relative to the best methods of cultivating the wheat crop, the corn crop, and all the other crops connected with the husbandry of the country, also remain yet to be settled. There are also yet to be settled questions of the highest importance, relative to the advantages to be derived from the culture of roots, together with the manner of their culture, and the most profitable uses to which they can be applied. We see already that an immense field lies in view, affording unlimited scope for inquiry, and for investigations relative to the agricultural interests of the country.

To these general remarks, we add two specific questions, selected not only because they are intrinsically important, but because they frequently occur, and no less than any others divide the minds of farmers. 1. If corn, while in a state of imperfect maturity, be bitten and injury by frost, will any thing be gained by cutting it up? 2. Is it profitable, in ordinary cases, to cut up corn at all, or to cut up the stalks while the ears are attached to them? In answer to the first question we shall now offer some remarks, and to the second we may respond at another time.

At the time of the great frost in September, we happened to have a small field of corn which was badly injured by that frost and what to do with it was to us a perplexing question. Having, however, a slight impression that something might be gained by cutting it up immediatly, we went at it, and cut and put up with our own hands, as much perhaps, as grew on the fourth of an ace. But finding that the work was toilsome, and having some misgivings as to what might be the consequences of it, we concluded to discontinue our labors, and abandon the crop to its fortune, whatever it might be.

The results of this experiment were such as fully to sustain the opinions entertained by by the old farmer of Waterloo, as reported by the editor of the Farmer, who was present and heard the conversation. The conversation turned on the question, what should be done

with corn that had been stricken with the frost? The old farmer "said that corn would ripen when deprived of its tops by the knife, and why should it not ripen when deprived of its leaves by the frost? But the leaves were not all killed, and the juices were fresh in the stalks. He thought the best management was, to let it alone." We are satisfied that the old farmer gave wise counsels—that his reasoning was logical, and his opinions correct. On subsequently examining the results of our experiment, we were not able to discover that the corn which had been cut up, had, in any respect, the advantage of that which had not been cut. The difference in quality was not indeed very striking, yet there was a difference, and it was decidedly in favor of the uncut corn. In relation to this experiment we submit the following remarks. 1. Several of the stalks, although put up as well as we knew how to do it, got down and suffered by exposure to the weather. In such case the corn was badly damaged. 2. No part of the corn that had been cut up, came in so well as that which had not been cut, while some of it was badly injured by exposure to the weather. 3. If any advantages were gained by cutting, they were to be found only in the greater value of the stalks for the use of fooder. Were these sufficient to balance the expense of cutting and putting up, together with considerable loss in damage to the crop? This we doubt. We think, as did the old farmer of Waterloo, that when unripe corn is stricken with frost, the best way to manage it is, to let it alone.

DAN BRADLEY.

Marcullus, Feb. 1837.

Marl.

It would be well if every cultivator was aware of the important fact, that whoever finds marl, finds a mine of great value. It is one of the best and most general manures in nature; proper for all soils and all crops. Marl is usually found under moss or peat, in low, sunken lands, and especially nigh the sea or large rivers. It has been sometimes discovered by ant hills, as those insects bring up small pieces of shell from their holes. It may be known by the application of a mineral acid, and even good vinegar will cause an effervescence.

"To find the composition of a marl, pour a few ounces of diluted muriatic acid into a Florence flask; place them in a scale and let them be balanced: then reduce a few ounces of this dry marl to powder; and let this powder be carefully weighed, and gradually thrown into the flask, until after repeated additions, no farther effervescence is perceived. Let the remainder of the powdered marl be weighed, by which the quantity projected will be known. Let the balance then be restored. The difference of weight between the quantity projected and that requisite to restore the balance, will show the weight of air lost during the effervescence. [That air proceeds from calcareous earth alone, which contains forty-four per cent. of this carbonic acid air. Suppose five hundred grains of marl lose forty-four grains by the escape of air, then that marl contained one hundred grains, or one fifth part of the whole weight of lime stone.—T G. F.] If the loss amount to twenty or twenty-five per cent. of the quantity of marl projected, by the marl essayed is calcareous, or marl rich in calcareous earth. Clayey marls, or those in which the argillaceous ingredient prevails, lose only eight or ten per cent. of their weight by this treatment, and sandy marls about the same proportion. The presence of much argillaceous earth may be judged by drying the marl, after being washed with spirit of salt, when it will harden and form a brick."—*Domestic Encyclopedia.*

Pasture for Swine.

A lot of land well seeded down to clover, is wanted by good cultivators for pasturing swine. The quantity of land to be proportioned to the number of swine that may keep the grass from going to seed. This will prevent waste, and the shorter the grass is the sweeter it will be, and the more pleasant food to the animals for whose use it is destined. The pig pasture should have a good supply of water, and running water is to be preferred to still water, but the latter is better than none. Hogs should not be permitted to run in their summer pasture till about the first of May; and they should be well ringed, or the gristle of their noses should be shaved off before they are allowed that liberty.—*Cultivator.*

PERSIAN ROSES.—"A man must behold a Persian rose to have any idea of its transcendant excellence above the roses of any other country; and its charms are not thrown away. The gardens of Prince and people are universally planted with it; and every path strewed with its delicious flowers."

These groves of roses, some of which grow to the height of fifteen feet, form avenues of superior beauty, and when spread over platforms and diversified with lilacs, with a thick underwood of fragrant shrubs, are the favorite resorts of numerous nightingales. The palaces of the King display all that original magnificence can achieve, in splendor or artificial decorations, in superb grottos, terraces, labyrinths, fountains, avenues, baths and gardens, and every where the rose predominates with the nightingale inhabiting its branches.

Fruit.

As many men are very negligent about cultivating good fruit we recommend to the ladies to take hold of this business. Our climate is well adapted to the raising of excellent apples, pears, plums, cherries, currants, gooseberries, some kinds of hardy grapes, and other valuable fruits. All these may be obtained at a small expense. And a small piece of ground will yield a large profit; and when one raises fruit which is known to be good, it is far more valuable than that often called good. We always dread to taste of fruit of an unknown kind, lest we should have our mouth drawn into a shape like that of poor Pat, when he tasted the persimmon, and his brother thought that he was trying to whistle. Now, ladies, give a little expense and attention to fashions, and a little expense and due attention to cultivating fruit, and you will make a great improvement, and soon receive with pleasure the fruit of your doings, instead of saying, in sober reflection, all is vanity.—*Yankee Farmer.*

From the New Hampshire Patriot.

Indian Corn.—Ridging.

Extract from an Address read before the Merrimack County Agricultural Society, at their annual Cattle Show and Fair, holden at Concord, October 1836, *by Cyrus Barton.*

There is a mode of culture in practice in some parts of the State, which, in my opinion, is far preferable to that generally practised in this country. Preferable, because more than one-half of the labor of ploughing and hoeing is saved, and at the same time a better crop is obtained. The mode is this: When a piece of mowing or pasture land is to be broken up in the spring for corn, the first thing is to spread the manure evenly over the whole surface. The ground is next thrown into *ridges*, by means of a plough with double mould-boards and shares—so that a furrow is turned up on each side of the plough as it passes along. Instead of going round, or "marking off a land," as it is termed, the plough returns on the same side, within 20 or 24 inches of the first furrow. You then have a *ridge*—the edges of the two furrows coming nearly in contact, the grass is covered up, and all the manure which was spread over the space occupied, is thrown within the ridge. A man follows with his hoe to mend up the turf where it breaks and falls back, and to fill up the interstices between the edges of the turf with the soil from the furrow.

As the ground only requires to be ploughed to the depth of about four or five inches, two yoke of oxen will easily plough two acres and a half a day, and which, where the ground is tolerably smooth and free from stones, the man who follows will dress and render fit for planting in the same time—or, as is frequently practised, the corn is dropped and planted, at the same time the ridges are dressed; and which is no doubt the better way.

Here then is a vast saving of labor; for I believe that one acre, by the present mode, is a good day's work; and, on the intervale lands in this town, the services of three yoke of cattle are required. But this is not all—for the ground has then to be harrowed, cross ploughed, and furrowed out for planting. So that the difference in labor, of preparing grass land for a corn crop, is as three to one in favor of ridging.

But this is not the only advantage. The ground being ploughed at the very time of planting, after the grass has become green, the decomposition of the turf and manure, thrown together within a ridge, causes fermentation to take place, the genial warmth of which causes the corn rapidly to spring up, and come forward with a vigorous and healthy growth—and with the whole of the manure confined within range of its roots, subject neither to evaporation, or to be washed away by rains, the corn usually comes to maturity some eight or ten days earlier than when treated in a different manner.

The mode of *ridging* has long been practiced in Sullivan County. More than twenty years ago, before I left the farm for the more arduous and severe labors of the workshop, I assisted in dressing these ridges. The improved plough was at that time unknown, and the ridging were then made by passing the common plough through both ways in the same furrow. It is the only mode practised in some of the towns in that county now, whether the surface be rough or smooth, or the ground wet or dry, when a crop of corn is to be taken from grass land; and I am happy to say that the experiment has been tried here during the present season, with the most satisfactory results.

At a suggestion of Paul Jacobs, Esq. who last year represented the town of Croyden in the Legislature, and who is one of the most extensive and best farmers in Sullivan county, Mr. William Low of this town was induced to send for one of the improved ploughs for ridging; and with which he ridged several acres on the intervale, which he planted with corn, and from which he has realised a tolerable crop, better than most of his neighbors—though not so good as the average of a good year. Mr. Robert Eastman of this

town, prepared a few acres of his ground in the same manner, and with a like result. This plough may also be used to great advantage in the cultivation of potatoes, two acres and a half of which may be ploughed and planted in a day, with the assistance of two persons to drop the seed as the ground is ploughed, and which is covered by the ploughing and dressing the ridges.

After a crop has been taken from ground prepared in this manner, the plough is run through the ridges lengthwise, either in fall or spring and the soil is prepared for the succeeding crop.

If, then, as has been fully demonstrated, a saving of one-half if not two-thirds of the labor of breaking up grass land and preparing it for a corn crop, can be realized by this mode of culture, and at the same time a better crop produced, it is certainly worthy the attention of the farmers of this county, who, I am satisfied will give to the subject all the considerations which its importance demands.

Washing Sheep.

Bartholomew Nelson, Esq. late of Augusta, now of Hallowell, remarkable for his plain, practical common sense, observed in conversation, that he thought he had made quite an improvement in his mode of washing sheep. Having a stream in his pasture, where he could raise a small head of water, he made a plank box, eight feet long, four feet wide, and three and a half feet high, just below his dam, from which he conducted a stream of water into his box, sufficient to keep it full and running over at the lower end besides a constant discharge from the bottom of the box through a two inch augur hole, to let off the sediment. This box or vat, he considered of fair size for four men to work at, standing on the outside, dry, while they washed their sheep, and then returned them to the flock in the yard, made of suitable size for the number of sheep to be washed. He thought this cheap establishment increased the comfort of his laborers, compared to wading into the water, and also that they could wash faster and cleaner, without bending so much, or exposing their clothes to be rent.

A number of neighbors might join in preparing such a convenient concern, where they could find suitable water; or one could build, and then rent the accommodation, if he choose. Considering this information too good to be lost, and it being a good season to provide the little lumber necessary, I thought I would relate it as recollected.

I think he stated that 3 or 4 men completed the whole concern in half a day.—*Bangor Mechanic and Farmer.*

Root Crops.

The great advantage of the culture of root crops has been proved beyond a doubt; and those who do not wish to neglect the most profitable branch of farming, should pay particular attention to the subject.

Carrots, when planted in a proper soil, a deep rich sandy loam, always a profitable crop, and furnish excellent food for horses in spring when mixed with cut hay, meal, &c. The Long Orange variety is by far the best for field culture.

As feeble plants, as well as feeble animals, generally produce feeble offspring, potatoes for seed should be selected from the largest. In dry soils, and in dry seasons, uncut potatoes generally succeed the best, because they do not dry up so soon. When potatoes are cut, they should for this reason be planted deeper than otherwise.

Gen. A. W. Barnum of Vergennes, Vt. raised in one instance at the rate of 3410 bushels of potatoes to the acre,* as was proved by the examination of several persons; and he is of opinion that 1000 bushels may be raised upon an acre of land, with less than half the expense it usually costs on four acres. Those who wish to perform the experiment are referred to the full description given in the Genesee Farmer, vol. 5, page 141.

Mangel wurtzel is one of the most profitable crops the farmer can cultivate. Any deep rich soil is well adapted to it, none other should be employed. It may be sowed from the first to the middle of May—about three pounds to the acre—in drills about 15 or 18 inches apart. It will require no more labor to hoe a given number of rows at this distance, than the same number at a greater distance, after a cultivator has been passed between them, and we get more from the ground. It is much better to sow them too thick than too thin, as they are easily thinned by the hand afterwards. Success greatly depends on keeping them clear of weeds at the early stages of their growth. Better not cultivate a crop if it cannot be done in the best manner, as disappointment in consequence of bad culture, does more mischief than is commonly supposed. Nevertheless, do not fail to cultivate a crop which is attended with so much profit.

T. & H. Little, of Newbury, Mass., raised 33½ tons of mangel wurtzel to the acre, or more than fourteen hundred bushels. Gideon Foster of Charleston, Mass., raised 43 tons to the acre. Henry Thompson of Baltimore raised at the rate of 60 tons to the acre.

The ground intended for ruta baga should be prepared during this month, in order that

* See Gen. Far. vol. 5, pp. 19, 141.

they may be sowed early in June. The preparation consists in enriching, if practicable by rotted manure, and finely and deeply pulverizing by ploughing and harrowing.

Soils for root crops should always be rich and deep enough to require no ridging; but when a soil is fertile and shallow, better crops are frequently raised by throwing it into ridges than leaving the surface flat, because in this ridge the fertile soil is accumulated. Hence some have supposed that ridging should be performed in *all* cases.

Peas as a Field Crop.

There is probably no vegetable which affords more nutritive matter than peas. Their culture, however, as a field crop, is not very extensive in this State, and their use as an article of diet or food, except when green is not very general. According to the calculation of some farmers, as many bushels of peas can be raised on rather poor land, as there could be raised bushels of corn on the same soil. If this be actually true, it would be much better to sow peas than to plant corn on such land. Oats should be sown with the peas, as they serve to support them and prevent their lodging, and they may be separated afterwards by a sieve properly made. Rich land is not so favorable for peas, as it causes them to produce more vine in porportion to the peas, than land of a poorer quality, and it is also thought best not to sow too many to the acre.—*Maine Farmer.*

Silk Growers Almanac for 1838.

The Subscribers propose publishing by subscription, an Almanac with the above title, which will contain, besides the usual calculations, full directions for the cultivation of the Mulberry tree, rearing silk worms, and reeling the cocoons into merchantable raw silk, also directions for the cultivation of the *Sugar Beet*, and converting the same into sugar. It will be edited by an experienced Silk Grower, printed on fine paper, 12 mo. with fair type, and embellished with numerous engravings, and will contain from seventy-five to one hundred pages of closely printed matter. The Almanacs will be ready for delivery on the first of September, 1837, and it is requested that subscription lists, to whom they may be sent, will be returned by the first or middle of August, as no more will be published than sufficient to supply subscribers. TERMS.—$15 per hundred, $2 25 per dozen, and 25 cents per single copy. All orders by mail (post paid,) or otherwise, enclosing the cash, will be promptly attended to. Those persons to whom these are sent, are requested to act as agents.

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Back Numbers.

We have now finished the reprint of our back numbers, the seventh number will in the course of a few days, be forwarded to all our subscribers who are entitled to receive it. If omissions have occurred in the transmission or receipt of former numbers, we will, on receipt of notice thereof, free of expense, forward duplicate copies.

The Money Market, and Prices Current.

There is still great fluctuation in the markets—the prices of most articles have declined considerably, and are at present so unsteady as to induce us to defer our prices current until the first of June. The most important matter that has transpired for years, and one which will affect every class of the community, is the suspension of specie payments by *all* the Banks in Philadelphia, New York, Boston, and Baltimore; we presume that country banks generally will adopt the same course, in self defence. The suspension of specie payments by the banks, has created much unnecessary alarm—and shows pretty conclusively, we think, that they are not able, on every emergency, to meet their liabilities: nevertheless, we believe they are generally solvent, and that no greater risk is run in taking their notes *now* than there has been heretofore; indeed, if the present course had not been adopted, the country would have been well nigh drained of specie by excessive *exportation.* Farmers should not be alarmed—there is no necessity of sacrificing the notes they have on hand, as we think they will soon pass current in all business transactions. The greatest inconvenience will be felt in cities and large towns; and among the poorer classes. As the country banks have already, or must undoubtedly follow the example of the banks in the large cities, in the suspension of specie payments, we presume that they will not be backward in redeeming their notes whenever the city banks commence the "good work." The Baltimore banks redeem all their five dollar notes—we regret that the other banks in this city and elsewhere, had not adopted a similar plan; it would have prevented the great inconvenience now felt for want of change. Again we say, be of good courage—keep out of debt, and above all let every farmer shun a bank—his name should never be found within its doors.

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